

01400500 RARITAN RIVER AT MANVILLE, NJ

RARITAN RIVER BASIN

LOCATION.--Lat 40°33'20", long 74°34'58" referenced to North American Datum of 1983, Bridgewater Township, Somerset County, NJ, Hydrologic Unit 02030105, on left bank at downstream side of bridge on North Main Street (Finderne Avenue) at Manville, and 1.4 mi upstream from Millstone River.

DRAINAGE AREA.--490 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--June 1903 to March 1907 (published as "at Finderne"), August 1908 to April 1915 (gage heights only, published in WSP 521), August 1921 to current year. Monthly discharge only for some periods, published in WSP 1302.

REVISED RECORDS.--WSP 1552: 1904, 1906, 1922, 1923(M), 1924-25, 1926-29(M), 1930, 1932-33(M), 1924-54. WDR NJ-75-1: 1964(M), 1969(M), 1970(P), 1971(P), 1972(P), 1973(P), WDR NJ-02-1: 2000(M).

GAGE.--Water-stage recorder. Datum of gage is 20.61 ft above NGVD of 1929. Prior to Aug 15, 1923, non-recording gage on downstream side of highway bridge at same site and datum. From Oct 1, 1952 to Sep 30, 1966, water-stage recorder at station at Bound Brook, above Calco Dam (station 01403000) used as auxiliary gage when stage was above 5.50 ft. On Oct 1, 1966, water-stage recorder at station at Bound Brook, used as auxiliary gage, was moved downstream to present site (station 01403060). Between Jun 9, 1978 and Jun 7, 1979, gage temporarily relocated at site 1.4 mi downstream, just upstream from Millstone River, because of reconstruction of highway bridge. Between Oct 1, 2006 and Mar 09, 2008, gage temporarily relocated at site 0.4 mi downstream, just upstream of an abandoned railroad bridge, because of reconstruction of highway bridge.

REMARKS.--Records good, except for estimated daily discharges, which are fair. Records given herein represent flow at gage only. Slight diurnal fluctuation at low flow. Flow regulated by Spruce Run (see 01396790) and Round Valley (see 01397050) Reservoirs. Diversion to Round Valley Reservoir (see 01396920) since March 1966. Prior to Sep 1, 1986, Johns-Manville Corporation diverted water 1,500 ft upstream from station by and returned to river 0.6 mi downstream from gage. Several measurements of water temperature were made during the year. Satellite gage-height telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 10,000 ft³/s and (or) maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb 14	0213	16,300	--
Mar 9	0415	*19,700	*16.71

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008
DAILY MEAN VALUES

[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	334	447	474	1,810	1,840	1,070	927	566	488	252	261	293
2	345	368	425	1,420	4,500	1,060	935	502	404	265	295	306
3	343	325	782	999	1,680	944	702	472	340	278	317	308
4	353	299	805	830	1,110	1,070	863	468	640	300	262	319
5	350	309	586	813	982	4,730	910	455	707	473	270	322
6	354	395	502	758	992	2,960	713	404	502	572	343	1,030
7	363	414	422	749	1,070	1,990	646	381	414	310	290	2,990
8	341	361	412	731	860	7,010	609	367	374	298	314	485
9	347	334	399	723	793	13,000	578	641	343	272	309	358
10	512	327	802	710	788	3,670	559	1,750	314	302	294	569
11	462	318	668	1,110	662	2,570	543	833	308	263	338	318
12	784	312	573	1,350	e550	2,160	1,080	695	281	267	295	268
13	532	315	753	1,040	6,850	1,780	774	748	282	276	261	345
14	346	329	1,780	1,210	10,100	1,570	634	566	298	460	272	272
15	234	383	1,300	1,130	3,370	1,520	568	494	920	311	352	215
16	238	519	1,310	965	2,200	1,410	526	830	442	267	288	202
17	225	430	1,730	845	1,560	1,250	498	1,960	401	332	221	193
18	207	378	974	1,840	3,670	1,120	489	1,050	355	368	231	206
19	206	430	764	1,640	3,430	1,850	477	1,010	339	333	243	228
20	666	530	713	1,140	1,960	5,240	460	846	311	322	279	235
21	407	565	730	833	1,500	2,470	453	1,300	286	339	257	235
22	241	519	667	e780	1,370	1,790	432	861	303	355	263	241
23	210	467	1,830	875	1,320	1,490	419	724	303	596	275	239
24	224	416	6,770	707	1,190	1,290	407	606	257	1,440	293	241
25	268	384	1,940	e620	1,180	1,200	387	539	271	595	295	241
26	267	964	1,320	e575	1,320	1,120	379	476	323	272	296	462
27	4,330	1,950	2,690	616	2,180	1,050	379	486	317	391	290	374
28	3,710	871	1,400	549	1,510	1,020	539	518	317	368	299	644
29	955	629	4,040	527	1,070	963	1,610	425	325	236	310	1,350
30	661	546	2,050	589	---	893	770	388	294	338	381	405
31	530	---	2,780	576	---	868	---	432	---	304	346	---
Total	19,345	14,834	42,391	29,060	61,607	72,128	19,266	21,793	11,459	11,755	9,040	13,894
Mean	624	494	1,367	937	2,124	2,327	642	703	382	379	292	463
Max	4,330	1,950	6,770	1,840	10,100	13,000	1,610	1,960	920	1,440	381	2,990
Min	206	299	399	527	550	868	379	367	257	236	221	193

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1904 - 2008, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	491	689	911	1,006	1,066	1,352	1,165	791	552	482	462	479
Max	2,433	2,460	2,877	3,856	2,406	3,260	3,507	2,707	2,581	2,542	2,552	2,068
(WY)	(1904)	(1933)	(1997)	(1979)	(1925)	(1936)	(1983)	(1989)	(1972)	(1975)	(1955)	(1971)
Min	64.8	87.5	148	188	216	354	259	212	88.8	65.1	50.5	51.2
(WY)	(1942)	(1932)	(1966)	(1966)	(2002)	(1981)	(1985)	(1926)	(1965)	(1955)	(1932)	(1941)

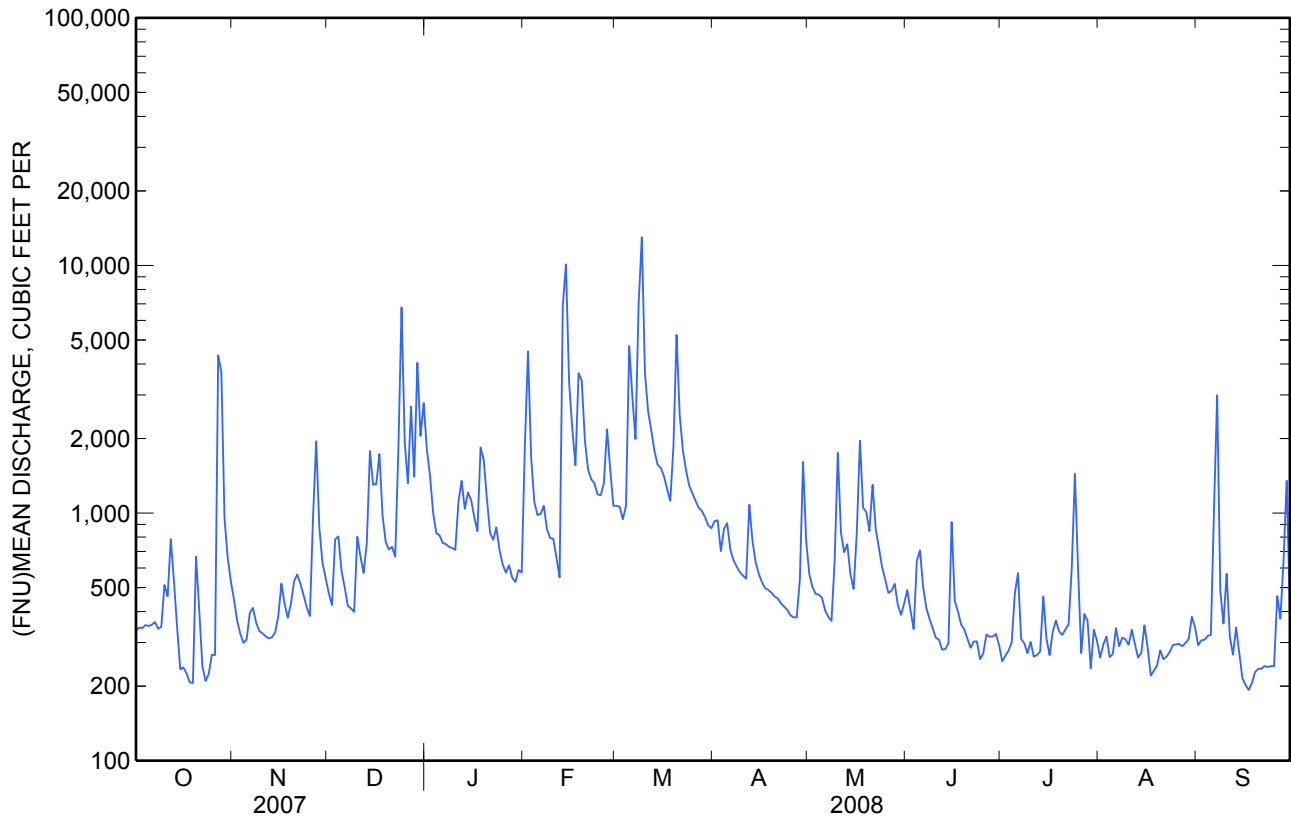
01400500 RARITAN RIVER AT MANVILLE, NJ—Continued

SUMMARY STATISTICS

	Calendar Year 2007		Water Year 2008		Water Years 1904 - 2008	
Annual total	357,526		326,572			
Annual mean	980		892		786	
Highest annual mean					1,365	
Lowest annual mean					309	
Highest daily mean	26,400	Apr 16	13,000	Mar 9	30,700	Sep 17, 1999
Lowest daily mean	206	Oct 19	193	Sep 17	^a 17	Sep 19, 1964
Annual seven-day minimum	284	Oct 13	216	Sep 15	29	Aug 27, 1944
Maximum peak flow			^b 19,700	Mar 9	^b 77,600	Sep 16, 1999
Maximum peak stage			16.80	Mar 9	27.49	Sep 17, 1999
Instantaneous low flow			183	Sep 16	17	Sep 19, 1964
10 percent exceeds	1,850		1,780		1,600	
50 percent exceeds	549		507		445	
90 percent exceeds	302		268		149	

^a Does not include water diverted to former Johns-Manville Corporation plant.

^b From rating curve extended above 14,000 ft³/s on basis of slope-area measurements at gage heights 14.9, 20.42, and 27.49 ft.



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WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1923-25, 1959-74, 1976-97, 2008 to current year.

PERIOD OF DAILY RECORD.--

DISSOLVED OXYGEN: August 2003 to September 2003, April 2008 to current year.

DISSOLVED OXYGEN, PERCENT SATURATION: August 2003 to September 2003, April 2008 to current year.

pH: August 2003 to September 2003, April 2008 to current year.

SPECIFIC CONDUCTANCE: August 2003 to September 2003, April 2008 to current year.

WATER TEMPERATURE: August 2003 to September 2003, April 2008 to current year.

TURBIDITY: April 2008 to current year.

INSTRUMENTATION.--Water-quality monitor since April 2008. Flow tank, pumping system; data recorded semi-hourly.

REMARKS.--The accuracy of continuous water-quality data is routinely verified through inspections for fouling and calibration drift. The New Jersey Water Science Center requires that either constant or prorated adjustments be made to the continuous water-quality record when the difference between a sensor's response and a known value exceeds the following criteria: Water Temperature, 0.2 degrees Celsius (+ or -); Specific Conductance, the greater of 5 microsiemens/cm (+ or -) or 3% of the measured value; Dissolved Oxygen, the greater of 0.3 mg/L (+ or -) or 5% of the measured value; pH, 0.3 units (+ or -); Turbidity, the greater of 2.0 FNU (+ or -) or 5% of the measured value. If the difference between a sensor's response and a known value is within specified criteria, the data are considered to be reliable and are not adjusted. Data from the following period(s) were adjusted - DISSOLVED OXYGEN: Apr 14-17; TEMPERATURE: Apr 23 to Aug 29; TURBIDITY: Apr 23 to Jun 6, Sep 19-30.

COOPERATION.--Continuous records collected in cooperation with the New Jersey Water Supply Authority.

EXTREMES FOR CURRENT YEAR.--

DISSOLVED OXYGEN: Maximum recorded, 15.3 mg/L, Apr 17; minimum, 5.3 mg/L, Jun 11.

DISSOLVED OXYGEN: Maximum recorded, 155 %, Apr 17; minimum, 66 %, Jun 11.

pH: Maximum recorded, 9.3 standard units, Apr 16, 17, 18; minimum recorded, 7.1 standard units, Sep 7.

SPECIFIC CONDUCTANCE: Maximum recorded, 359 microsiemens/cm, Jun 15; minimum recorded, 120 microsiemens/cm, Jul 5.

WATER TEMPERATURE: Maximum, 30.8°C, Jul 20; minimum recorded, 11.4°C, Apr 15.

TURBIDITY: Maximum recorded, 200 FNU, Jul 5; minimum recorded, 1.2 FNU, Apr 16.

01400500 RARITAN RIVER AT MANVILLE, NJ—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	October			November			December			January		
1	---	---	---	---	---	---	---	---	---	---	---	---
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Month	---	---	---	---	---	---	---	---	---	---	---	---

01400500 RARITAN RIVER AT MANVILLE, NJ—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	February			March			April			May		
1	---	---	---	---	---	---	---	---	---	11.0	9.4	10.2
2	---	---	---	---	---	---	---	---	---	10.8	9.4	9.9
3	---	---	---	---	---	---	---	---	---	10.0	9.1	9.5
4	---	---	---	---	---	---	---	---	---	10.8	9.3	9.9
5	---	---	---	---	---	---	---	---	---	10.3	8.8	9.4
6	---	---	---	---	---	---	---	---	---	9.9	8.2	9.0
7	---	---	---	---	---	---	---	---	---	9.8	8.0	8.8
8	---	---	---	---	---	---	---	---	---	8.9	7.5	8.1
9	---	---	---	---	---	---	---	---	---	8.9	7.6	8.1
10	---	---	---	---	---	---	---	---	---	9.6	8.9	9.4
11	---	---	---	---	---	---	---	---	---	10.0	9.3	9.6
12	---	---	---	---	---	---	---	---	---	9.8	9.2	9.5
13	---	---	---	---	---	---	---	---	---	10.6	9.5	10.1
14	---	---	---	---	---	---	---	---	---	10.0	8.9	9.4
15	---	---	---	---	---	---	14.9	10.2	12.2	9.7	8.5	9.0
16	---	---	---	---	---	---	15.0	10.3	12.2	9.1	8.1	8.5
17	---	---	---	---	---	---	15.3	9.9	12.2	9.6	9.1	9.4
18	---	---	---	---	---	---	14.6	9.5	11.7	9.2	8.9	9.1
19	---	---	---	---	---	---	13.7	8.8	10.9	9.9	9.2	9.6
20	---	---	---	---	---	---	11.5	8.4	9.6	10.1	9.7	9.9
21	---	---	---	---	---	---	13.0	8.7	10.5	10.2	9.8	10.1
22	---	---	---	---	---	---	13.0	8.9	10.7	10.2	9.5	9.8
23	---	---	---	---	---	---	11.8	8.5	9.9	10.3	9.5	9.9
24	---	---	---	---	---	---	10.8	7.8	9.2	10.1	9.1	9.6
25	---	---	---	---	---	---	10.5	7.4	8.9	10.3	8.9	9.6
26	---	---	---	---	---	---	9.9	7.5	8.7	10.1	8.4	9.2
27	---	---	---	---	---	---	9.9	7.9	8.8	9.6	7.8	8.5
28	---	---	---	---	---	---	9.5	8.7	9.1	9.8	7.5	8.6
29	---	---	---	---	---	---	9.8	9.0	9.4	10.3	7.9	9.0
30	---	---	---	---	---	---	10.8	9.3	10	10.6	8.1	9.2
31	---	---	---	---	---	---	---	---	---	9.2	7.6	8.2
Month	---	---	---	---	---	---	---	---	---	11.0	7.5	9.3

01400500 RARITAN RIVER AT MANVILLE, NJ—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	June			July			August			September		
1	9.5	7.3	8.3	10.2	6.2	8.0	9.7	6.3	7.8	10.8	7.0	8.6
2	9.7	7.2	8.3	10.3	6.1	8.1	9.4	6.2	7.5	10.8	7.0	8.6
3	9.9	6.9	8.2	10.5	6.4	8.2	9.8	6.7	8.1	10.9	6.8	8.5
4	8.2	6.9	7.6	9.6	6.4	7.7	10.1	6.8	8.3	10.7	6.7	8.3
5	8.9	7.6	8.2	9.4	6.5	7.4	10.0	6.6	8.2	10.6	6.6	8.3
6	9.6	7.8	8.5	8.4	6.9	7.5	9.6	6.8	8.0	8.3	6.4	7.3
7	9.9	7.3	8.4	9.2	6.8	7.9	10.0	6.6	8.1	7.1	6.1	6.6
8	9.7	6.6	7.9	9.7	6.6	8.0	9.8	6.7	8.1	7.9	6.6	7.1
9	9.7	5.9	7.6	9.2	6.2	7.6	10.3	6.9	8.5	7.4	6.3	6.7
10	10.0	5.6	7.4	9.9	6.3	8.0	9.6	7.0	8.1	8.1	6.8	7.5
11	9.8	5.3	7.3	10.3	6.5	8.2	10.4	7.3	8.6	8.6	7.2	7.7
12	10.7	5.7	7.9	10.3	6.4	8.3	10.5	7.5	8.9	8.2	7.1	7.6
13	11.2	5.8	8.2	10.4	6.5	8.3	10.6	7.3	8.8	8.7	7.1	7.7
14	11.5	6.1	8.4	8.5	6.4	7.3	10.5	7.0	8.4	8.9	6.7	7.7
15	7.2	5.8	6.7	10.4	6.6	8.2	10.5	6.6	8.1	9.2	6.3	7.5
16	8.8	6.4	7.3	10.4	6.5	8.3	10.1	6.6	8.1	9.3	6.3	7.6
17	8.8	6.4	7.5	10.2	6.4	8.0	10.7	6.5	8.4	10.2	6.9	8.3
18	9.4	7.0	7.9	10.0	6.4	8.1	10.7	6.5	8.4	10.1	7.3	8.4
19	10.3	7.2	8.6	10.0	6.2	8.0	10.4	6.6	8.4	10.6	7.7	9.0
20	11.0	7.5	8.9	9.9	6.1	7.9	10.6	6.9	8.6	11.2	8.4	9.5
21	11.4	7.1	9.0	9.6	6.0	7.8	10.8	7.2	8.8	11.2	8.4	9.6
22	10.8	6.8	8.4	9.9	6.0	7.6	10.7	7.2	8.7	11.2	8.3	9.5
23	10.5	6.6	8.2	8.2	6.2	7.0	10.6	7.1	8.7	11.1	8.2	9.5
24	10.6	6.6	8.4	7.2	6.9	7.0	10.2	7.0	8.5	11.1	8.3	9.5
25	11.3	6.7	8.7	8.8	7.0	7.8	10.0	6.8	8.3	10.8	8.4	9.5
26	9.6	6.7	7.9	9.4	6.6	7.8	10.6	7.0	8.6	9.6	8.7	9.1
27	10.7	6.8	8.4	8.8	6.2	7.2	10.9	7.2	8.8	9.8	8.4	8.9
28	10.3	6.6	8.1	9.3	6.7	7.8	10.8	7.4	8.9	9.2	8.0	8.4
29	9.6	6.2	7.7	9.7	6.6	8.0	10.4	7.3	8.6	8.1	7.8	8.0
30	9.7	6.2	7.7	9.2	6.3	7.6	10.3	7.1	8.4	9.5	7.8	8.5
31	---	---	---	9.5	6.5	7.9	10.5	7.0	8.5	---	---	---
Month	11.5	5.3	8.1	10.5	6.0	7.8	10.9	6.2	8.4	11.2	6.1	8.3

01400500 RARITAN RIVER AT MANVILLE, NJ—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, PERCENT OF SATURATION
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	October			November			December			January		
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25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
Month	---	---	---	---	---	---	---	---	---	---	---	---

01400500 RARITAN RIVER AT MANVILLE, NJ—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, PERCENT OF SATURATION
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	February			March			April			May		
1	---	---	---	---	---	---	---	---	---	108	89	98
2	---	---	---	---	---	---	---	---	---	108	90	97
3	---	---	---	---	---	---	---	---	---	98	89	92
4	---	---	---	---	---	---	---	---	---	111	89	98
5	---	---	---	---	---	---	---	---	---	111	88	98
6	---	---	---	---	---	---	---	---	---	108	84	95
7	---	---	---	---	---	---	---	---	---	109	82	94
8	---	---	---	---	---	---	---	---	---	98	80	87
9	---	---	---	---	---	---	---	---	---	88	79	83
10	---	---	---	---	---	---	---	---	---	94	88	91
11	---	---	---	---	---	---	---	---	---	100	90	94
12	---	---	---	---	---	---	---	---	---	93	89	91
13	---	---	---	---	---	---	---	---	---	106	92	98
14	---	---	---	---	---	---	---	---	---	105	89	96
15	---	---	---	---	---	---	144	94	115	105	87	95
16	---	---	---	---	---	---	150	97	118	90	85	87
17	---	---	---	---	---	---	155	94	120	97	89	93
18	---	---	---	---	---	---	153	92	118	94	90	92
19	---	---	---	---	---	---	147	89	113	98	90	94
20	---	---	---	---	---	---	119	86	98	95	93	94
21	---	---	---	---	---	---	135	86	106	99	93	96
22	---	---	---	---	---	---	139	88	110	102	92	96
23	---	---	---	---	---	---	129	86	105	105	94	99
24	---	---	---	---	---	---	121	81	99	106	92	98
25	---	---	---	---	---	---	116	77	96	111	92	100
26	---	---	---	---	---	---	106	79	92	114	89	100
27	---	---	---	---	---	---	101	80	90	112	85	95
28	---	---	---	---	---	---	93	85	89	112	83	96
29	---	---	---	---	---	---	96	86	90	115	85	99
30	---	---	---	---	---	---	107	88	96	122	85	101
31	---	---	---	---	---	---	---	---	---	105	83	92
Month	---	---	---	---	---	---	---	---	---	122	79	95

01400500 RARITAN RIVER AT MANVILLE, NJ—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, PERCENT OF SATURATION
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
June			July			August			September			
1	110	81	94	133	76	101	129	78	100	133	80	103
2	115	80	95	135	76	102	121	77	95	133	81	103
3	116	77	94	137	78	104	125	82	101	135	80	102
4	93	77	85	123	79	96	130	82	103	134	79	102
5	99	83	90	114	79	91	129	80	102	133	79	101
6	111	86	96	103	82	91	123	84	101	101	77	88
7	120	82	99	115	82	97	129	81	102	83	70	76
8	124	78	97	127	80	101	125	81	100	94	75	82
9	127	72	96	119	77	96	130	81	103	85	72	78
10	133	70	96	129	78	101	115	82	97	93	78	85
11	129	66	94	135	79	104	123	84	101	97	80	87
12	138	69	100	132	79	105	128	85	104	92	79	84
13	144	70	103	137	80	106	131	84	105	100	79	87
14	148	74	106	108	79	91	132	82	102	108	80	90
15	88	71	82	136	80	104	130	79	99	113	75	90
16	110	77	90	137	79	106	126	77	98	111	73	89
17	109	76	92	134	80	103	135	76	103	119	77	95
18	108	81	93	133	80	105	134	77	103	115	80	94
19	124	81	100	134	78	105	131	79	102	118	82	98
20	134	85	106	133	78	104	131	80	103	125	88	103
21	142	81	109	128	77	102	133	82	105	126	88	104
22	136	81	103	132	76	98	133	83	105	127	88	104
23	130	79	101	104	78	88	132	82	104	126	88	104
24	133	79	103	88	83	85	126	82	103	125	88	104
25	143	79	107	110	84	95	123	81	100	116	88	101
26	120	81	97	121	79	97	130	81	103	101	90	95
27	134	81	104	112	75	89	131	82	104	105	88	95
28	134	80	103	118	80	96	130	84	104	102	86	92
29	123	78	97	124	79	100	123	83	100	89	84	87
30	124	77	98	117	78	96	126	82	100	104	83	92
31	---	---	---	124	81	101	129	82	102	---	---	---
Month	148	66	98	137	75	99	135	76	102	135	70	94

01400500 RARITAN RIVER AT MANVILLE, NJ—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Day	Max	Min	Median	Max	Min	Median	Max	Min	Median	Max	Min	Median
	October			November			December			January		
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
Max	---	---	---	---	---	---	---	---	---	---	---	---
Min	---	---	---	---	---	---	---	---	---	---	---	---

01400500 RARITAN RIVER AT MANVILLE, NJ—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Day	Max	Min	Median	Max	Min	Median	Max	Min	Median	Max	Min	Median
	February			March			April			May		
1	---	---	---	---	---	---	---	---	---	8.0	7.7	7.8
2	---	---	---	---	---	---	---	---	---	8.0	7.7	7.8
3	---	---	---	---	---	---	---	---	---	7.8	7.7	7.8
4	---	---	---	---	---	---	---	---	---	8.0	7.7	7.8
5	---	---	---	---	---	---	---	---	---	8.0	7.8	7.8
6	---	---	---	---	---	---	---	---	---	8.0	7.7	7.8
7	---	---	---	---	---	---	---	---	---	8.0	7.7	7.8
8	---	---	---	---	---	---	---	---	---	7.9	7.6	7.7
9	---	---	---	---	---	---	---	---	---	7.7	7.6	7.7
10	---	---	---	---	---	---	---	---	---	7.7	7.6	7.7
11	---	---	---	---	---	---	---	---	---	7.8	7.6	7.7
12	---	---	---	---	---	---	---	---	---	7.8	7.7	7.7
13	---	---	---	---	---	---	---	---	---	7.9	7.7	7.8
14	---	---	---	---	---	---	---	---	---	7.8	7.7	7.8
15	---	---	---	---	---	---	9.2	8.7	8.9	7.9	7.7	7.7
16	---	---	---	---	---	---	9.3	8.8	9.0	7.7	7.6	7.6
17	---	---	---	---	---	---	9.3	8.8	9.0	7.7	7.5	7.6
18	---	---	---	---	---	---	9.3	8.7	8.9	7.7	7.6	7.6
19	---	---	---	---	---	---	9.2	8.6	8.8	7.8	7.7	7.7
20	---	---	---	---	---	---	8.9	8.1	8.6	7.8	7.7	7.7
21	---	---	---	---	---	---	8.9	7.9	8.4	7.8	7.7	7.7
22	---	---	---	---	---	---	9.0	8.1	8.7	7.8	7.7	7.7
23	---	---	---	---	---	---	8.9	8.1	8.4	7.9	7.8	7.8
24	---	---	---	---	---	---	8.7	8.0	8.2	7.9	7.8	7.8
25	---	---	---	---	---	---	8.6	7.8	8.1	8.1	7.8	7.9
26	---	---	---	---	---	---	8.3	7.8	8.0	8.2	7.8	7.9
27	---	---	---	---	---	---	8.1	7.7	7.8	8.2	7.7	7.9
28	---	---	---	---	---	---	7.8	7.7	7.8	8.3	7.7	8.0
29	---	---	---	---	---	---	7.7	7.6	7.6	8.5	7.8	8.0
30	---	---	---	---	---	---	7.9	7.6	7.7	8.6	7.8	8.0
31	---	---	---	---	---	---	---	---	---	8.2	7.8	7.9
Max	---	---	---	---	---	---	---	---	---	8.6	7.8	8.0
Min	---	---	---	---	---	---	---	---	---	7.7	7.5	7.6

01400500 RARITAN RIVER AT MANVILLE, NJ—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Day	Max	Min	Median	Max	Min	Median	Max	Min	Median	Max	Min	Median
	June			July			August			September		
1	8.2	7.7	7.8	8.8	7.7	8.1	8.8	7.6	8.2	8.8	7.6	8.0
2	8.3	7.7	7.9	8.9	7.7	8.3	8.7	7.8	8.1	8.8	7.6	8.0
3	8.3	7.6	7.9	9.0	7.8	8.4	8.8	7.8	8.2	8.9	7.6	8.0
4	7.9	7.6	7.7	8.8	7.8	8.2	8.9	7.8	8.4	8.8	7.6	7.9
5	7.8	7.7	7.7	8.4	7.5	7.8	8.9	7.8	8.4	8.8	7.6	7.9
6	8.1	7.7	7.7	7.8	7.5	7.7	8.8	8.0	8.3	8.0	7.2	7.5
7	8.3	7.6	7.8	8.2	7.6	7.8	8.9	7.7	8.3	7.2	7.1	7.2
8	8.4	7.6	7.8	8.4	7.6	7.8	8.9	7.9	8.3	7.4	7.2	7.3
9	8.5	7.6	7.8	8.4	7.5	7.8	9.0	7.9	8.5	7.3	7.2	7.3
10	8.5	7.6	7.8	8.6	7.5	7.9	8.8	7.9	8.2	7.5	7.3	7.4
11	8.5	7.6	7.8	8.7	7.5	8.1	8.8	7.8	8.1	7.6	7.4	7.4
12	8.8	7.6	7.9	8.7	7.6	8.2	9.0	7.8	8.4	7.5	7.3	7.4
13	8.9	7.7	8.1	8.9	7.7	8.4	9.0	7.9	8.5	7.6	7.3	7.4
14	9.0	7.8	8.2	8.4	7.5	7.9	9.1	7.9	8.4	7.8	7.4	7.4
15	8.0	7.6	7.7	8.6	7.5	8.0	9.0	7.7	8.1	8.0	7.4	7.5
16	7.8	7.4	7.7	8.8	7.6	8.2	8.8	7.6	8.0	8.0	7.4	7.6
17	7.9	7.4	7.6	8.8	7.7	8.2	9.0	7.7	8.4	8.2	7.5	7.7
18	8.0	7.5	7.6	8.8	7.7	8.2	9.0	7.9	8.5	8.2	7.6	7.7
19	8.3	7.5	7.8	8.8	7.6	8.2	9.0	7.9	8.5	8.3	7.6	7.8
20	8.6	7.6	8.0	8.8	7.6	8.2	9.0	7.9	8.5	8.4	7.6	7.9
21	8.8	7.6	8.2	8.8	7.6	8.3	9.0	7.9	8.4	8.5	7.6	7.9
22	8.8	7.8	8.3	8.8	7.7	8.0	9.0	7.8	8.4	8.5	7.6	7.9
23	8.8	7.8	8.1	7.9	7.4	7.6	9.0	7.9	8.4	8.6	7.7	8.0
24	8.8	7.6	8.1	7.5	7.3	7.4	9.0	7.8	8.4	8.6	7.7	8.0
25	8.9	7.8	8.4	7.9	7.5	7.6	8.9	7.8	8.2	8.4	7.7	8.0
26	8.8	7.9	8.3	8.3	7.5	7.7	9.0	7.8	8.3	7.9	7.6	7.7
27	8.8	7.7	8.2	8.1	7.5	7.7	9.0	7.8	8.4	7.8	7.6	7.6
28	9.0	7.7	8.3	8.2	7.5	7.7	9.0	7.9	8.4	7.7	7.3	7.5
29	8.8	7.7	8.1	8.5	7.5	7.8	8.8	7.9	8.2	7.4	7.3	7.4
30	8.8	7.7	8.1	8.5	7.6	8.0	8.7	7.7	7.9	7.6	7.3	7.4
31	---	---	---	8.7	7.8	8.1	8.8	7.7	8.0	---	---	---
Max	9.0	7.9	8.4	9.0	7.8	8.4	9.1	8.0	8.5	8.9	7.7	8.0
Min	7.8	7.4	7.6	7.5	7.3	7.4	8.7	7.6	7.9	7.2	7.1	7.2

01400500 RARITAN RIVER AT MANVILLE, NJ—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	October			November			December			January		
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
Month	---	---	---	---	---	---	---	---	---	---	---	---

01400500 RARITAN RIVER AT MANVILLE, NJ—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	February			March			April			May		
1	---	---	---	---	---	---	---	---	---	287	260	273
2	---	---	---	---	---	---	---	---	---	298	287	291
3	---	---	---	---	---	---	---	---	---	304	298	301
4	---	---	---	---	---	---	---	---	---	309	303	306
5	---	---	---	---	---	---	---	---	---	311	308	310
6	---	---	---	---	---	---	---	---	---	315	309	312
7	---	---	---	---	---	---	---	---	---	321	315	317
8	---	---	---	---	---	---	---	---	---	325	319	321
9	---	---	---	---	---	---	---	---	---	331	294	318
10	---	---	---	---	---	---	---	---	---	303	236	251
11	---	---	---	---	---	---	---	---	---	249	244	245
12	---	---	---	---	---	---	---	---	---	276	249	263
13	---	---	---	---	---	---	---	---	---	282	274	279
14	---	---	---	---	---	---	---	---	---	290	278	283
15	---	---	---	---	---	---	303	298	300	298	290	294
16	---	---	---	---	---	---	309	302	305	302	262	292
17	---	---	---	---	---	---	313	306	308	273	221	233
18	---	---	---	---	---	---	326	309	313	260	241	250
19	---	---	---	---	---	---	326	312	318	258	254	257
20	---	---	---	---	---	---	322	314	317	278	250	264
21	---	---	---	---	---	---	322	315	318	267	239	248
22	---	---	---	---	---	---	323	315	319	269	248	261
23	---	---	---	---	---	---	325	318	321	276	269	273
24	---	---	---	---	---	---	326	320	323	287	276	281
25	---	---	---	---	---	---	328	323	325	294	286	290
26	---	---	---	---	---	---	331	325	327	303	294	297
27	---	---	---	---	---	---	343	327	336	310	289	304
28	---	---	---	---	---	---	336	298	325	306	301	303
29	---	---	---	---	---	---	318	251	270	310	303	305
30	---	---	---	---	---	---	260	247	251	320	310	313
31	---	---	---	---	---	---	---	---	---	331	282	318
Month	---	---	---	---	---	---	---	---	---	331	221	286

01400500 RARITAN RIVER AT MANVILLE, NJ—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	June			July			August			September		
1	321	308	314	310	305	308	287	280	283	264	250	255
2	317	310	313	313	308	311	315	287	299	252	247	250
3	321	315	317	319	307	312	301	280	290	263	252	255
4	324	246	307	310	297	303	298	286	295	265	261	263
5	301	276	281	303	120	283	301	295	299	264	258	261
6	293	281	289	289	263	272	309	260	295	265	135	221
7	300	291	294	296	289	291	260	247	251	204	153	179
8	316	300	306	305	296	299	274	199	261	237	204	226
9	324	316	318	308	300	306	266	260	261	246	156	236
10	332	324	327	316	304	308	264	252	261	270	244	260
11	337	332	335	313	307	310	268	249	260	280	267	271
12	340	337	339	310	301	306	257	242	247	294	221	281
13	341	339	340	307	296	302	266	257	262	300	283	293
14	345	291	339	302	153	279	266	210	258	317	300	310
15	359	247	286	295	276	288	266	131	248	332	315	324
16	278	247	263	303	295	298	276	234	256	339	327	331
17	279	272	275	311	303	308	319	276	298	349	339	343
18	283	216	272	307	243	268	319	306	311	351	344	349
19	291	281	286	246	241	245	310	299	305	344	335	339
20	305	291	300	251	209	244	316	292	300	335	321	329
21	311	305	309	248	244	247	316	251	273	322	313	318
22	329	311	322	274	225	247	256	250	252	318	310	314
23	324	310	317	252	177	229	256	252	254	316	305	311
24	320	313	317	240	199	224	254	245	249	310	305	308
25	324	312	318	270	238	259	249	243	246	309	301	305
26	330	317	325	290	270	278	248	242	244	308	231	288
27	317	277	291	304	235	294	245	240	242	311	300	304
28	312	281	292	291	272	279	246	236	241	304	153	271
29	313	262	305	294	289	291	245	241	243	261	233	245
30	308	301	305	308	294	302	264	216	243	278	238	259
31	---	---	---	301	280	287	265	242	257	---	---	---
Month	359	216	307	319	120	283	319	131	267	351	135	283

01400500 RARITAN RIVER AT MANVILLE, NJ—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	October			November			December			January		
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
Month	---	---	---	---	---	---	---	---	---	---	---	---

01400500 RARITAN RIVER AT MANVILLE, NJ—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	February			March			April			May		
1	---	---	---	---	---	---	---	---	---	14.3	12.9	13.6
2	---	---	---	---	---	---	---	---	---	15.2	13.3	14.1
3	---	---	---	---	---	---	---	---	---	14.2	13.4	14.0
4	---	---	---	---	---	---	---	---	---	16.4	13.1	14.5
5	---	---	---	---	---	---	---	---	---	18.7	15.2	16.7
6	---	---	---	---	---	---	---	---	---	19.4	16.2	17.7
7	---	---	---	---	---	---	---	---	---	20.4	16.6	18.4
8	---	---	---	---	---	---	---	---	---	19.9	18.2	18.9
9	---	---	---	---	---	---	---	---	---	18.5	14.8	16.6
10	---	---	---	---	---	---	---	---	---	14.8	13.3	14.0
11	---	---	---	---	---	---	---	---	---	15.5	13.7	14.6
12	---	---	---	---	---	---	---	---	---	14.7	12.3	13.5
13	---	---	---	---	---	---	---	---	---	15.1	11.8	13.4
14	---	---	---	---	---	---	---	---	---	17.6	14.7	16.1
15	---	---	---	---	---	---	14.0	11.4	12.6	19.0	16.4	17.5
16	---	---	---	---	---	---	15.0	11.9	13.3	17.7	14.9	16.7
17	---	---	---	---	---	---	16.1	12.6	14.2	16.1	13.6	14.8
18	---	---	---	---	---	---	17.6	14.0	15.7	16.2	15.3	15.8
19	---	---	---	---	---	---	18.5	15.8	16.9	15.3	14.1	14.6
20	---	---	---	---	---	---	16.9	15.5	16.3	14.1	12.2	13.1
21	---	---	---	---	---	---	17.0	14.9	15.7	14.1	11.7	12.9
22	---	---	---	---	---	---	18.4	14.8	16.4	15.3	13.6	14.3
23	---	---	---	---	---	---	19.6	15.9	17.6	16.4	13.8	15.1
24	---	---	---	---	---	---	20.6	17.2	18.7	17.4	15.6	16.4
25	---	---	---	---	---	---	20.2	17.4	18.6	19.0	15.7	17.3
26	---	---	---	---	---	---	18.6	16.8	17.8	21.0	17.3	19.0
27	---	---	---	---	---	---	16.8	14.9	16.1	22.8	19.5	20.9
28	---	---	---	---	---	---	14.9	13.7	14.1	21.9	19.5	20.7
29	---	---	---	---	---	---	14.1	13.0	13.5	20.8	18.4	19.5
30	---	---	---	---	---	---	14.7	12.8	13.7	22.0	17.7	19.7
31	---	---	---	---	---	---	---	---	---	21.7	19.4	20.5
Month	---	---	---	---	---	---	---	---	---	22.8	11.7	16.3

01400500 RARITAN RIVER AT MANVILLE, NJ—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	June			July			August			September		
1	22.7	20.0	21.3	29.1	25.3	27.2	29.9	26.2	27.9	25.7	22.0	23.8
2	23.7	20.3	21.8	29.1	25.4	27.2	28.2	26.3	27.1	25.8	22.0	23.9
3	23.5	20.4	21.8	29.1	25.1	27.1	27.9	24.9	26.3	26.1	23.0	24.4
4	21.6	20.0	20.8	27.8	25.8	26.7	28.3	24.6	26.4	26.7	23.6	25.1
5	20.5	19.4	20.0	26.6	24.4	25.4	28.3	24.7	26.5	26.9	24.0	25.4
6	22.3	19.8	20.9	25.5	23.6	24.5	28.1	25.9	26.8	25.3	22.9	24.5
7	25.2	20.9	23.0	26.7	24.5	25.5	28.4	25.3	26.7	22.9	21.6	22.4
8	27.8	23.6	25.5	29.0	24.9	26.9	27.5	24.7	25.8	24.0	21.5	22.7
9	29.1	25.2	27.1	28.5	26.3	27.4	27.0	23.4	25.1	22.5	21.8	22.2
10	30.1	26.2	28.1	29.0	25.9	27.4	25.1	23.0	23.9	22.1	20.6	21.4
11	29.3	26.1	27.7	29.4	25.1	27.2	24.3	21.7	22.7	21.9	20.3	21.0
12	28.5	25.2	26.8	29.2	25.5	27.4	25.2	21.3	23.1	20.8	19.9	20.4
13	28.1	24.5	26.3	29.9	25.9	27.9	26.1	22.1	24.1	22.4	20.0	21.1
14	28.3	24.7	26.6	28.0	25.5	26.8	27.1	23.3	24.9	25.1	21.5	23.2
15	26.4	23.8	25.2	29.1	24.7	26.8	26.7	23.4	24.7	26.0	22.9	24.3
16	27.5	24.6	25.8	29.8	25.1	27.5	26.3	22.6	24.3	23.9	22.0	22.9
17	26.3	23.6	25.0	30.1	26.2	28.1	27.0	22.7	24.9	23.2	20.2	21.7
18	24.4	22.0	23.1	30.3	26.5	28.3	27.2	23.2	25.2	22.1	19.4	20.7
19	24.6	20.6	22.6	30.7	27.1	28.8	27.0	23.8	25.2	20.4	18.1	19.2
20	25.4	21.0	23.2	30.8	27.6	29.1	26.1	22.6	24.2	20.7	17.1	18.8
21	26.6	21.8	24.3	30.4	27.6	29.0	25.8	21.6	23.7	21.0	17.0	19.1
22	27.0	23.8	25.2	30.2	27.4	28.5	26.2	22.2	24.2	21.3	18.2	19.7
23	26.8	24.5	25.5	27.6	25.0	26.6	26.3	22.4	24.3	21.4	18.2	19.8
24	26.8	23.7	25.3	25.2	24.2	24.8	26.1	23.1	24.7	20.9	17.9	19.4
25	27.4	23.2	25.4	26.4	24.1	25.2	25.8	23.7	24.6	19.0	17.4	18.2
26	26.4	24.5	25.3	28.1	24.2	26.0	25.7	22.3	23.9	17.7	16.9	17.3
27	27.2	23.9	25.6	27.6	24.5	25.8	24.6	21.6	23.0	18.7	17.3	18.1
28	28.9	25.0	26.8	27.3	23.9	25.5	24.6	20.8	22.6	20.3	18.7	19.5
29	28.7	26.0	27.3	28.6	24.4	26.5	24.0	21.8	22.8	19.9	19.0	19.5
30	28.6	25.8	27.2	28.3	25.8	27.0	25.2	22.5	23.7	20.3	18.4	19.3
31	---	---	---	29.1	26.3	27.7	25.8	22.7	24.1	---	---	---
Month	30.1	19.4	24.7	30.8	23.6	27.0	29.9	20.8	24.8	26.9	16.9	21.3

01400500 RARITAN RIVER AT MANVILLE, NJ—Continued

TURBIDITY, WATER, UNFILT, NEAR IR LED LIGHT, 780-900 NM, DETECT ANG. 90 DEG, FORMAZIN NEPHELOMETRIC UNITS
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	October			November			December			January		
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
Month	---	---	---	---	---	---	---	---	---	---	---	---

01400500 RARITAN RIVER AT MANVILLE, NJ—Continued

TURBIDITY, WATER, UNFILT, NEAR IR LED LIGHT, 780-900 NM, DETECT ANG. 90 DEG, FORMAZIN NEPHELOMETRIC UNITS
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

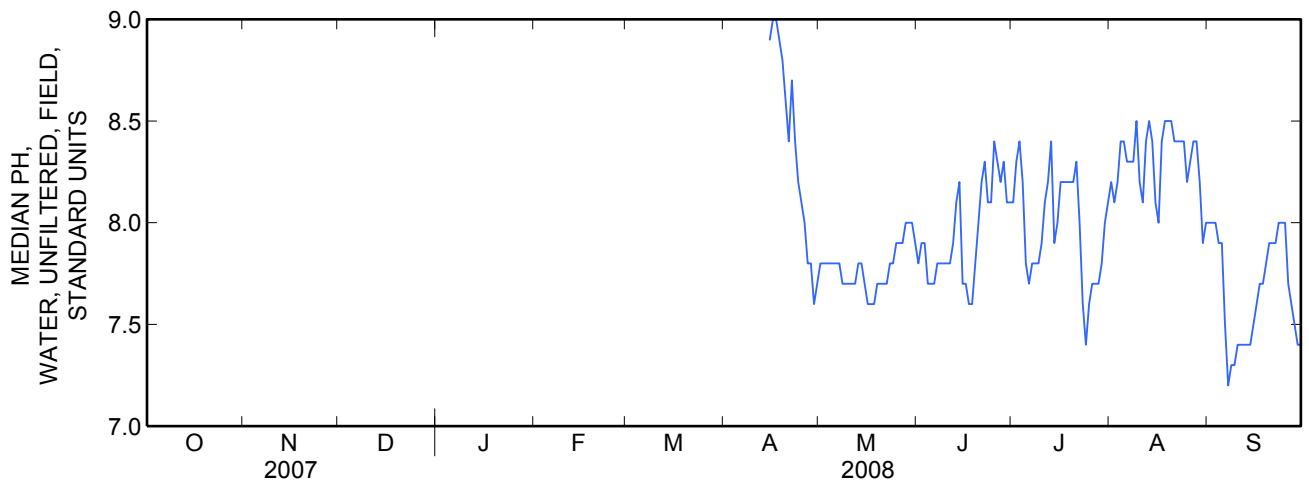
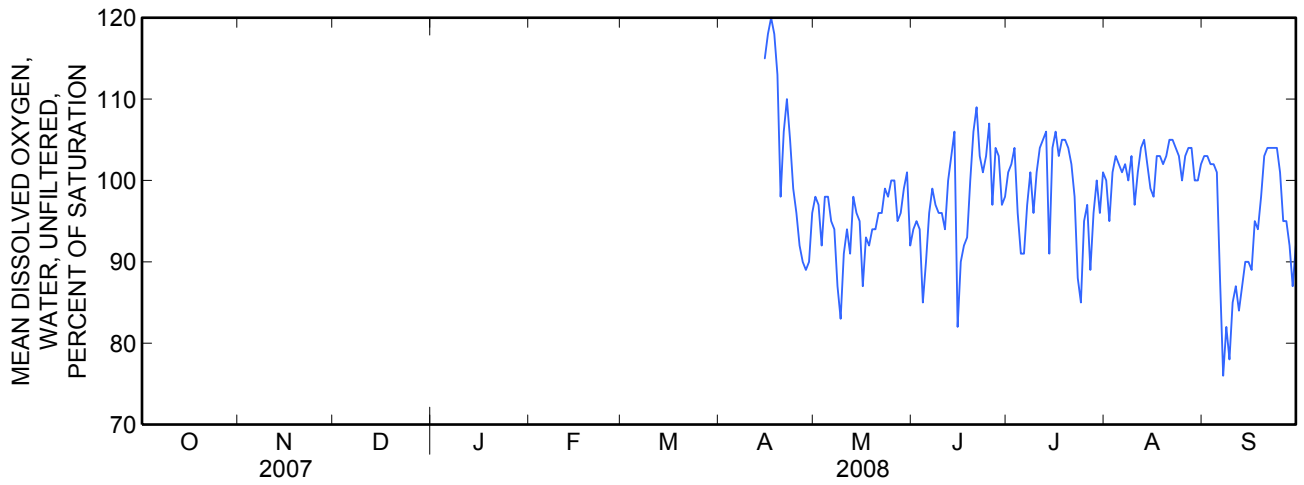
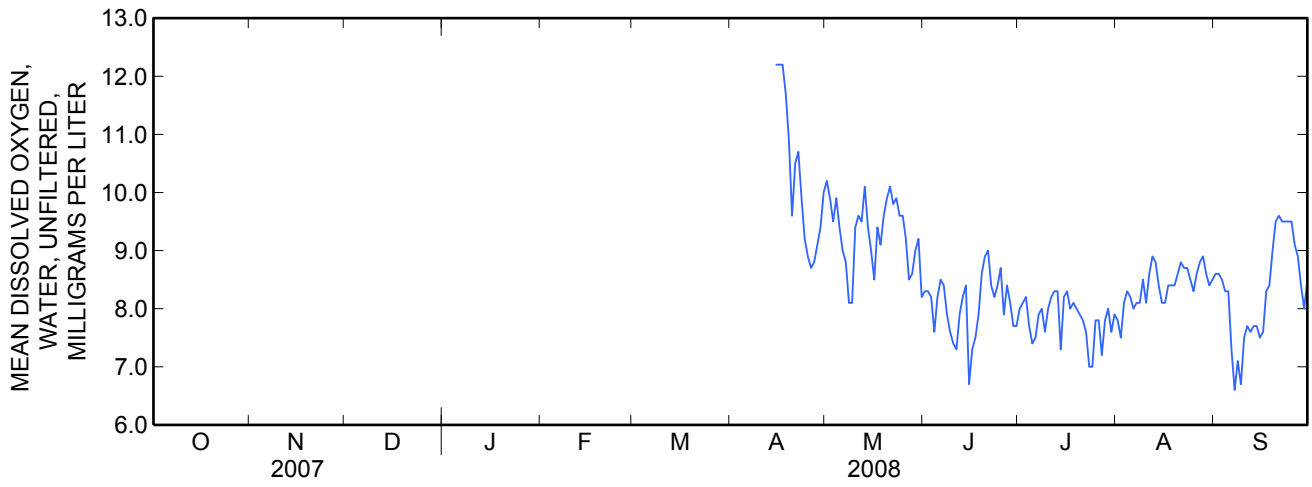
Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	February			March			April			May		
1	---	---	---	---	---	---	---	---	---	8.6	4.2	5.9
2	---	---	---	---	---	---	---	---	---	8.8	4.3	6.1
3	---	---	---	---	---	---	---	---	---	10	6.2	8.2
4	---	---	---	---	---	---	---	---	---	8.6	4.5	6.2
5	---	---	---	---	---	---	---	---	---	9.1	4.5	6.4
6	---	---	---	---	---	---	---	---	---	12	5.0	8.0
7	---	---	---	---	---	---	---	---	---	10	4.5	7.1
8	---	---	---	---	---	---	---	---	---	11	5.6	8.6
9	---	---	---	---	---	---	---	---	---	70	10	26
10	---	---	---	---	---	---	---	---	---	70	20	43
11	---	---	---	---	---	---	---	---	---	20	7.8	12
12	---	---	---	---	---	---	---	---	---	23	8.8	12
13	---	---	---	---	---	---	---	---	---	10	7.6	8.8
14	---	---	---	---	---	---	---	---	---	12	6.2	8.9
15	---	---	---	---	---	---	5.2	1.4	2.5	9.4	5.6	7.6
16	---	---	---	---	---	---	6.1	1.2	3.0	79	8.1	25
17	---	---	---	---	---	---	6.9	1.5	3.6	65	22	42
18	---	---	---	---	---	---	5.6	1.8	3.4	22	12	16
19	---	---	---	---	---	---	7.7	1.9	4.6	16	12	14
20	---	---	---	---	---	---	8.9	4.0	5.9	45	7.3	14
21	---	---	---	---	---	---	7.9	1.8	4.5	35	17	27
22	---	---	---	---	---	---	6.5	2.0	3.9	17	9.4	12
23	---	---	---	---	---	---	10	3.0	5.9	10	6.6	8.1
24	---	---	---	---	---	---	11	5.3	7.4	9.3	7.1	7.7
25	---	---	---	---	---	---	10	5.8	7.6	9.4	5.8	7.4
26	---	---	---	---	---	---	10	5.2	6.9	8.3	5.6	6.5
27	---	---	---	---	---	---	10	6.3	7.5	13	6.8	8.8
28	---	---	---	---	---	---	68	7.2	26	11	6.1	8.4
29	---	---	---	---	---	---	86	23	49	13	5.4	6.8
30	---	---	---	---	---	---	23	8.0	13	13	5.1	6.2
31	---	---	---	---	---	---	---	---	---	100	6.0	14
Month	---	---	---	---	---	---	---	---	---	100	4.2	13

01400500 RARITAN RIVER AT MANVILLE, NJ—Continued

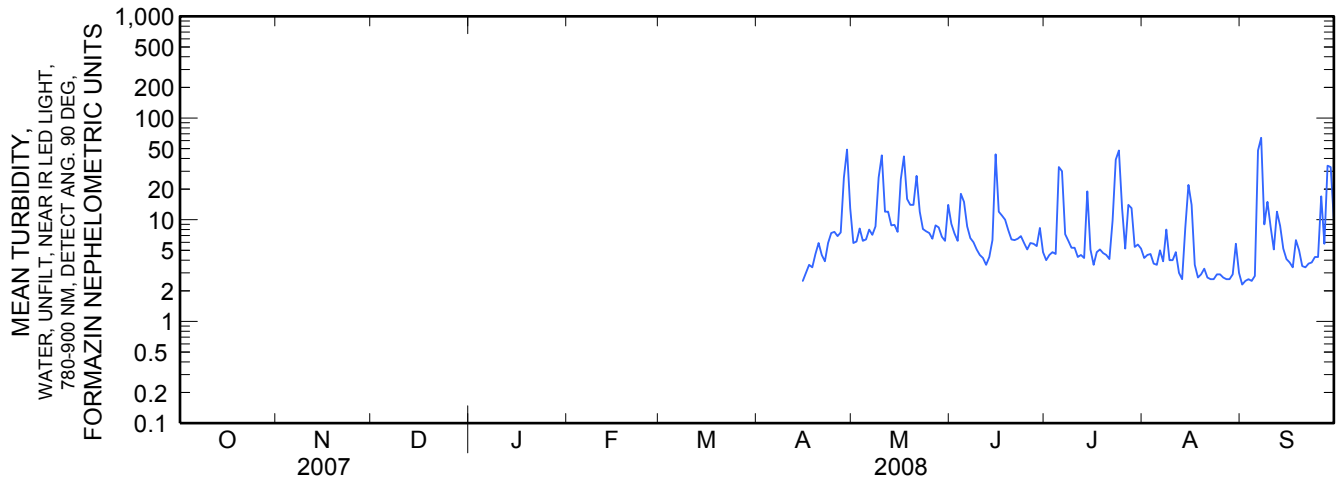
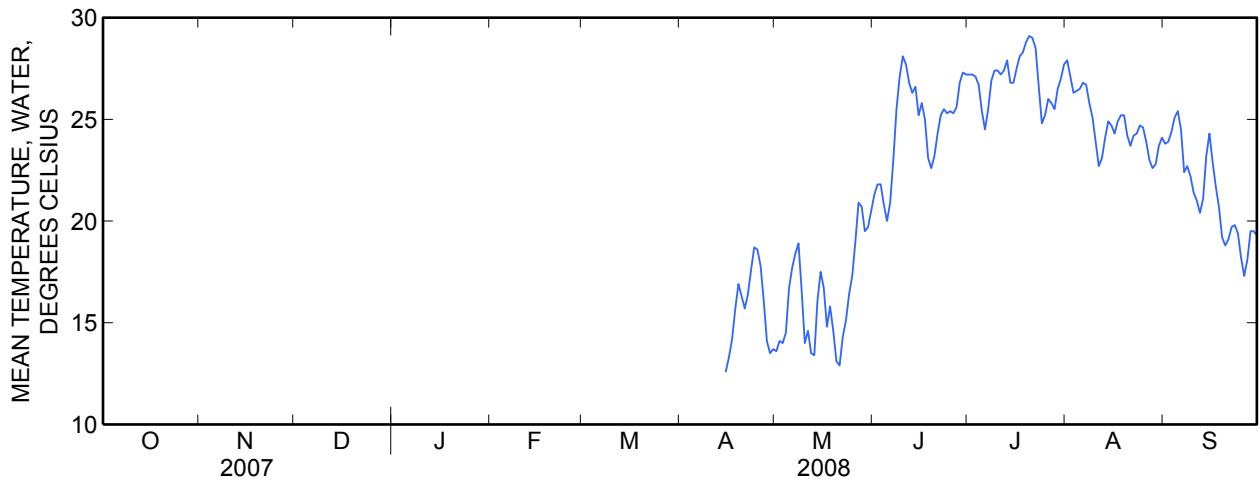
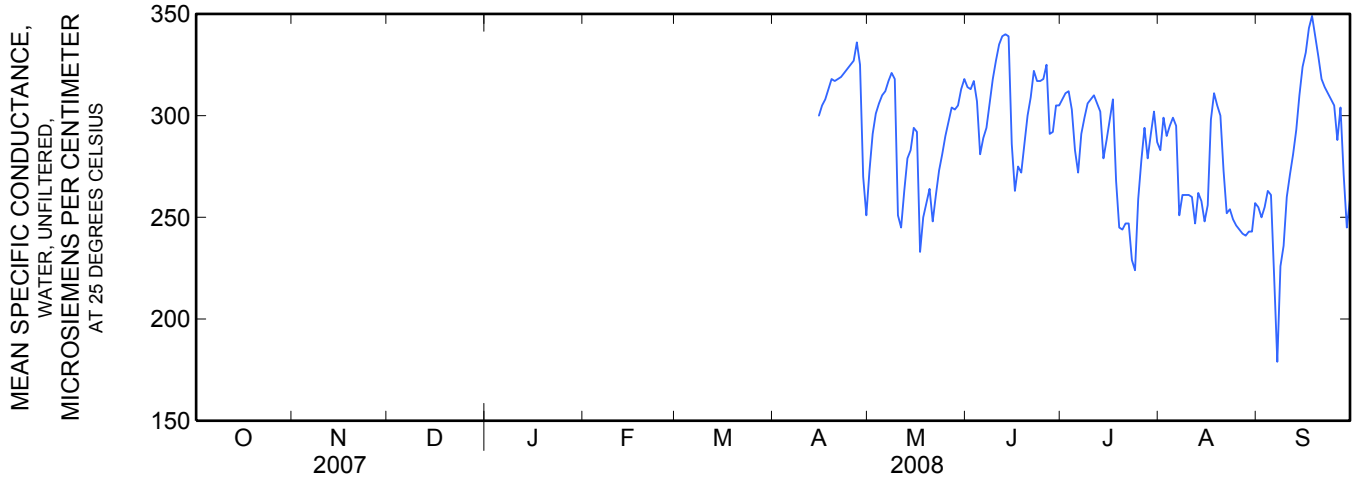
TURBIDITY, WATER, UNFILT, NEAR IR LED LIGHT, 780-900 NM, DETECT ANG. 90 DEG, FORMAZIN NEPHELOMETRIC UNITS
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
	June			July			August			September		
1	14	6.9	9.1	7.3	2.9	4.0	7.0	2.3	4.2	3.5	1.6	2.3
2	10	5.8	7.3	6.8	3.2	4.5	6.3	2.9	4.5	3.6	1.8	2.5
3	6.7	5.6	6.2	8.7	3.1	4.8	8.6	2.4	4.6	4.2	1.7	2.6
4	48	6.2	18	7.3	3.2	4.6	7.5	1.8	3.7	3.7	1.7	2.5
5	21	9.5	15	200	3.4	33	6.9	2.0	3.6	19	1.7	2.8
6	11	6.6	8.6	59	10	30	11	2.3	5.0	180	1.9	48
7	8.7	5.2	6.6	11	4.7	7.2	6.5	2.0	3.9	170	17	64
8	9.1	4.2	6.0	8.8	3.6	6.2	110	2.2	8.0	17	5.5	9.0
9	7.8	3.6	5.1	8.1	3.2	5.3	7.4	2.0	4.0	100	4.4	15
10	6.7	3.0	4.5	8.6	3.1	5.3	8.6	1.8	4.0	12	5.4	8.5
11	6.0	3.2	4.2	7.0	2.5	4.3	9.3	2.4	4.8	7.1	3.8	5.1
12	6.6	2.3	3.6	6.6	2.7	4.5	5.0	1.9	3.0	66	3.1	12
13	7.1	2.8	4.3	6.9	2.2	4.2	4.0	1.6	2.6	17	4.7	8.7
14	35	2.9	6.3	88	5.5	19	71	2.3	8.3	8.2	2.8	5.2
15	110	13	44	13	2.4	5.1	100	2.3	22	6.5	2.5	4.1
16	23	5.9	12	6.3	1.9	3.6	57	5.0	14	4.9	2.4	3.8
17	140	6.8	11	8.9	2.5	4.8	5.8	1.8	3.6	4.7	2.3	3.4
18	51	5.6	10	9.1	2.6	5.1	4.0	1.7	2.7	12	2.7	6.3
19	11	5.5	7.9	9.9	1.9	4.7	4.3	1.8	2.9	8.7	2.8	5.0
20	13	3.9	6.4	18	1.8	4.5	6.1	1.8	3.3	5.0	2.1	3.5
21	9.8	4.0	6.3	8.1	1.7	4.1	3.7	1.8	2.7	5.2	1.9	3.4
22	14	4.2	6.5	160	1.5	9.8	4.1	1.8	2.6	6.9	2.0	3.7
23	14	3.9	6.9	140	8.7	39	3.7	1.7	2.6	7.7	1.9	3.8
24	38	3.5	5.9	71	25	48	4.5	1.8	2.9	8.4	1.9	4.3
25	8.4	3.3	5.1	25	6.0	13	4.6	1.8	2.9	8.5	2.2	4.3
26	8.9	4.3	5.9	10	3.0	5.2	4.0	1.7	2.7	41	5.4	17
27	9.3	3.9	5.8	120	4.2	14	4.1	1.6	2.6	12	2.9	5.8
28	19	3.4	5.5	25	6.0	13	4.1	1.7	2.6	170	2.7	34
29	71	3.5	8.3	8.8	2.8	5.4	4.4	2.1	2.9	50	19	33
30	8.0	3.2	4.8	9.5	3.7	5.7	18	2.8	5.8	19	6.3	9.9
31	---	---	---	9.5	2.7	5.2	5.1	1.7	3.0	---	---	---
Month	140	2.3	8.6	200	1.5	11	110	1.6	4.7	180	1.6	11

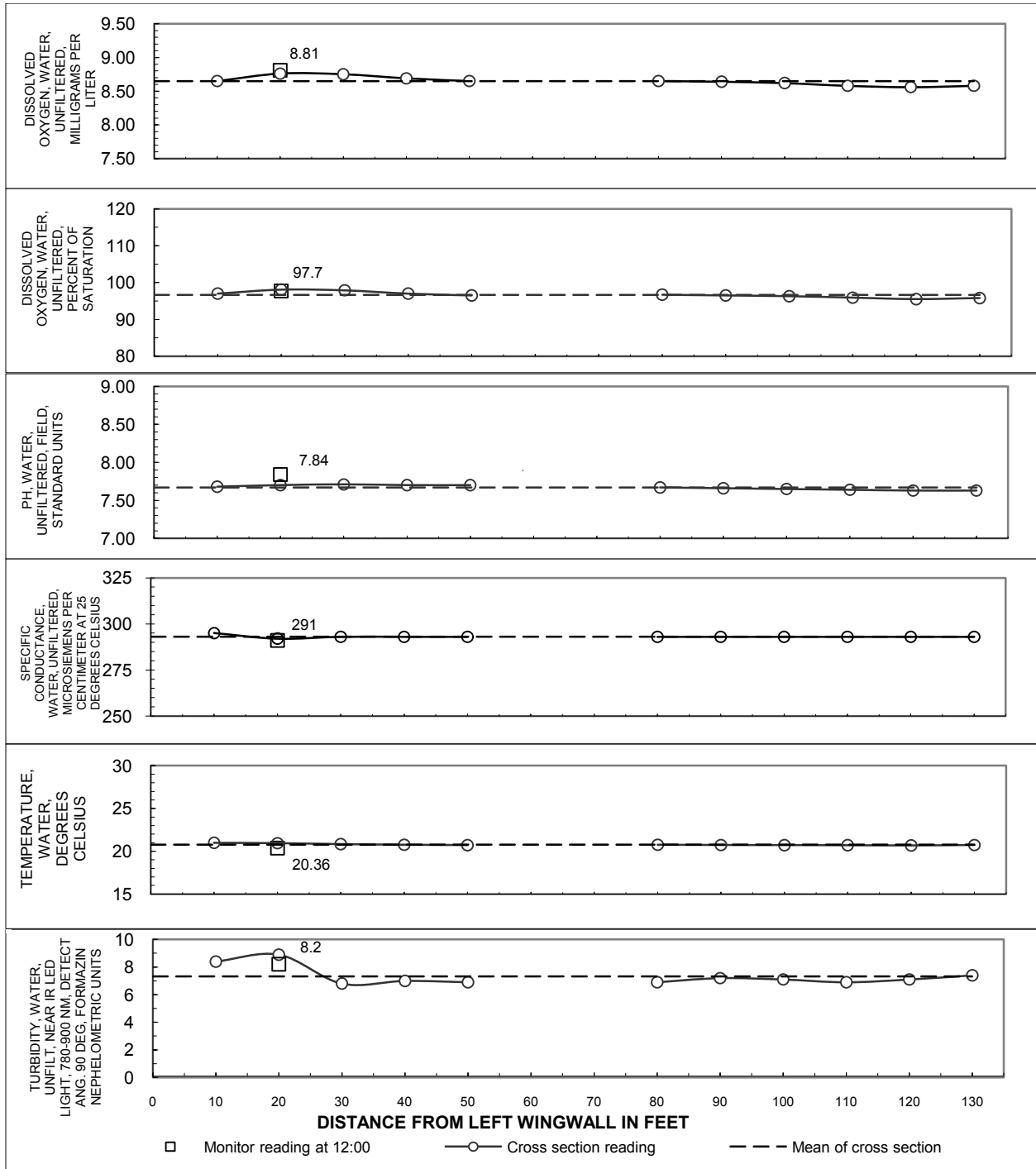
01400500 RARITAN RIVER AT MANVILLE, NJ—Continued



01400500 RARITAN RIVER AT MANVILLE, NJ—Continued



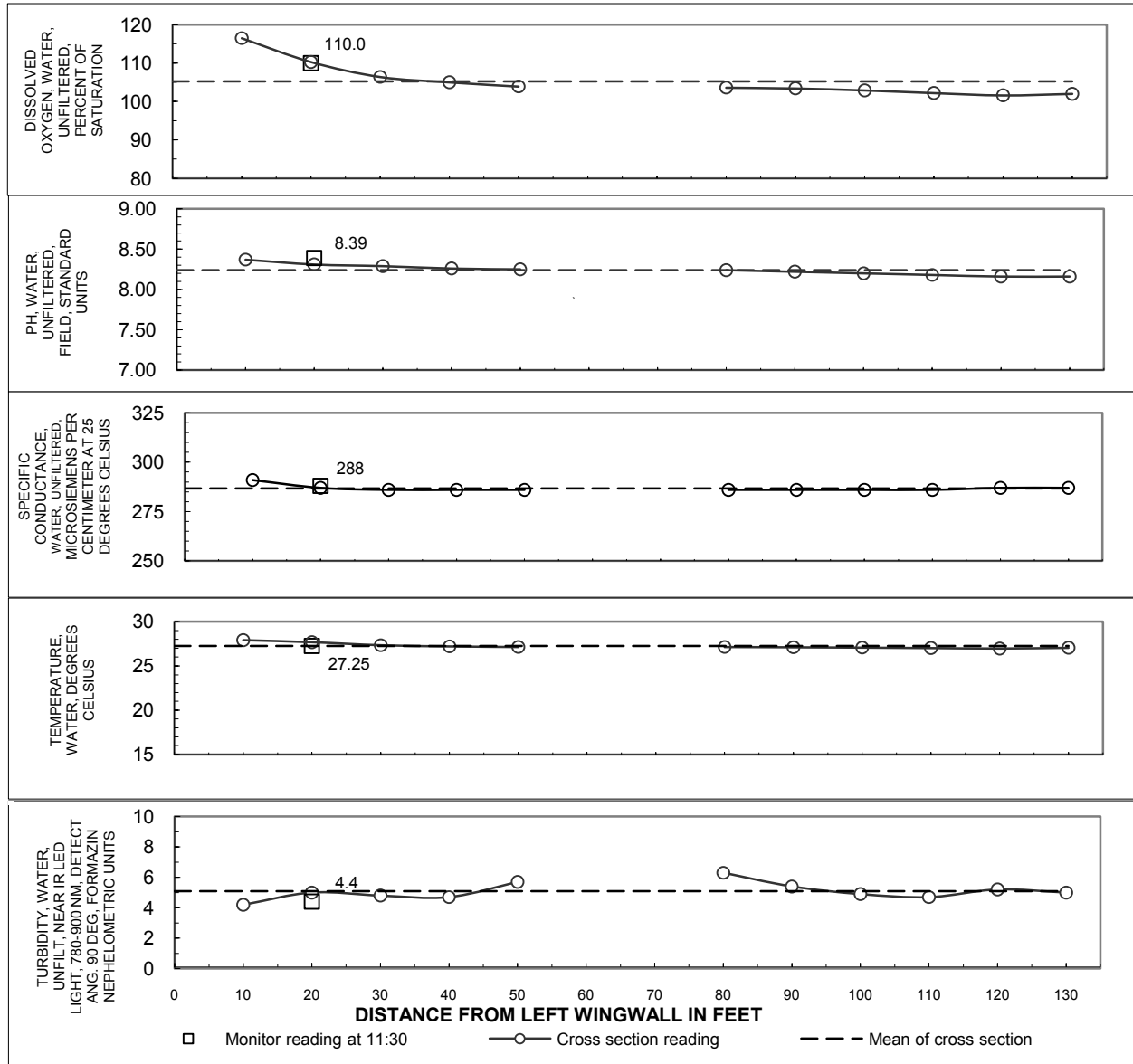
01400500 RARITAN RIVER AT MANVILLE, NJ—Continued



CROSS-SECTIONAL WATER-QUALITY MEASUREMENTS WITH RECORDED MONITOR VALUES, AT NOTED TIME, ON JUNE 6, 2008.

[Cross sectional measurements were made periodically to document river variability and verify that recorded monitor values were representative of river conditions. Water-quality measurements acquired at increments of 10 feet. Gap in center due to presence of bridge pier. The daily mean discharge of 502 ft³/s for the Raritan River at Manville on June 6, 2008 was equaled or exceeded 47 percent of the time by all daily mean discharges for the Raritan River at Manville between water years 1964-2008.]

01400500 RARITAN RIVER AT MANVILLE, NJ—Continued



CROSS-SECTIONAL WATER-QUALITY MEASUREMENTS WITH RECORDED MONITOR VALUES, AT NOTED TIME, ON JULY 31, 2008.

[Cross sectional measurements were made periodically to document river variability and verify that recorded monitor values were representative of river conditions. Water-quality measurements acquired at increments of 10 feet. Gap in center due to presence of bridge pier. The daily mean discharge of 304 ft³/s for the Raritan River at Manville on July 31, 2008 was equaled or exceeded 70 percent of the time by all daily mean discharges for the Raritan River at Manville between water years 1964-2008.]